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(71) Applicant (for all designated States except US): **PEARSON TECHNOLOGIES, INC.** [US/US]; 20088 Norm Connell Drive, Aberdeen, MS 39730 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **PEARSON, Stanley, R.** [US/US]; 544 S. Lakeview Drive, Baton Rouge, LA 70810-4631 (US).

(74) Agent: **DOLCE, Marcus, P.**; Price, Heneveld, Cooper, DeWitt & Litton, LLP, 695 Kenmoor, S.E., Grand Rapids, MI 49501-2567 (US).

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(54) Title: PROCESS AND APPARATUS FOR THE PRODUCTION OF USEFUL PRODUCTS FROM CARBONACEOUS FEEDSTOCK

(57) Abstract: A carbonaceous feedstock to alcohol conversion process in which carbon dioxide and a portion of the hydrogen produced are removed from the syngas stream issuing from a feedstock reformer, to yield a reduced hydrogen, carbon monoxide and methane syngas stream. The hydrogen and the carbon dioxide are passed through a Fischer Tropsch reactor which is catalyzed to favor the production of methanol. The methanol produced in the Fischer-Tropsch reactor is passed with the reduced hydrogen syngas through a second Fischer-Tropsch reactor which is catalyzed to favor the production of ethanol. Also disclosed, without limitation, are a unique catalyst, a method for controlling the content of the syngas formed in the feedstock reformer, and a feedstock handling system.

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